Correction to 'Radiation belt electron precipitation into the atmosphere: recovery from a geomagnetic storm'

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[1] In the paper "Radiation belt electron precipitation into the atmosphere: Recovery from a geomagnetic storm" by C. J. Rodger et al. (*Journal of Geophysical Research*, *112*, A11307, doi:10.1029/2007JA012383), the order of equations (3) and (4), as well as (6) and (7), were given incorrectly. These equations describe the effective recombination rates in the D-region of the ionosphere, α_{eff}. The correct order for the equations are given below.

[2] For nighttime equations, small changes are made in the *Rodger et al.* [1998] expressions to provide the best quality agreement with SIC nighttime calculations. For altitudes above 80 km,

$$\alpha_{eff} = 2.0 \times 10^{-12} \left({}^{T_e}/_{300}\right)^{-0.55} \text{ m}^3\text{s}^{-1}, \quad (3)$$

where T_e is the electron temperature, while for altitudes of 80 km and below,

$$\alpha_{eff} = 2.5 \times 10^{-11} \sqrt{{}^{300}/_{T_e}} \text{ m}^3\text{s}^{-1}. \quad (4)$$

For daytime equations, the following is used for altitudes above 84 km,

$$\alpha_{eff} = 5.0 \times 10^{-13} \left({}^{T_e}/_{300}\right)^{-0.55} \text{ m}^3\text{s}^{-1}, \quad (6)$$

while the following is used for altitudes of 84 km and below,

$$\alpha_{eff} = 3 \times 10^{-12} \sqrt{{}^{300}/_{T_e}} \text{ m}^3\text{s}^{-1}. \quad (7)$$

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Reference

Rodger, C. J., O. A. Molchanov, and N. R. Thomson (1998), Relaxation of transient ionization in the lower ionosphere, *J. Geophys. Res.*, *103*(4), 6969–6975, doi:10.1029/98JA00016.

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